

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A polypeptide selected from the group consisting of the following (a) to (c):
 - (a) a polypeptide comprising an amino acid sequence shown in SEQ ID NO: 2,
 - (b) a polypeptide comprising an amino acid sequence substantially identical to the amino acid sequence shown in SEQ ID NO: 2, and having a pyroglutamyl peptidase activity, and
 - (c) a polypeptide comprising an amino acid sequence wherein one or more amino acid residues are deleted, substituted or added in the amino acid sequence shown in SEQ ID NO: 2, and having a pyroglutamyl peptidase activity.
2. (original): DNA comprising a nucleotide sequence encoding the polypeptide according to claim 1.
3. (original): DNA selected from the group consisting of the following (a) to (c):
 - (a) DNA comprising a nucleotide sequence shown in SEQ ID NO: 1,
 - (b) DNA comprising a nucleotide sequence shown in SEQ ID NO: 5, and
 - (c) DNA which hybridizes with DNA comprising a nucleotide sequence complementary to the nucleotide sequence shown in SEQ ID NO: 1 or 5 under stringent conditions, and comprises a nucleotide sequence encoding a polypeptide having a pyroglutamyl peptidase activity.
4. (original): DNA selected from the group consisting of the following (a) to (c):
 - (a) DNA comprising a nucleotide sequence shown in SEQ ID NO: 3,

(b) DNA which comprises a partial sequence of the nucleotide sequence shown in SEQ ID NO: 3 consisting of 100 or more nucleotides and functions as a promoter, and

(c) DNA which hybridizes with DNA comprising a nucleotide sequence complementary to the nucleotide sequence shown in SEQ ID NO: 3 under stringent conditions and functions as a promoter.

5. (original): DNA selected from the group consisting of the following (a) to (c):

(a) DNA comprising a nucleotide sequence complementary to a nucleotide sequence shown in SEQ ID NO: 4,

(b) DNA which comprises a partial sequence of a nucleotide sequence complementary to the nucleotide sequence shown in SEQ ID NO: 4 consisting of 15 or more nucleotides, and

(c) DNA which hybridizes with DNA comprising the nucleotide sequence shown in SEQ ID NO: 4 under stringent conditions.

6. (original): The DNA according to any one of claims 2 to 5, wherein DNA is genomic DNA.

7. (currently amended): An oligonucleotide comprising a nucleotide sequence consisting of 15 or more contiguous nucleotides of the nucleotide sequence of the DNA according to any one of claims 2 to 65 or a nucleotide sequence complementary thereto.

8. (original): A recombinant DNA comprising the DNA according to claims 2 or 3.

9. (original): A transformant comprising the recombinant DNA according to claim 8.

10. (original): A process for producing the polypeptide according to claim 1, which comprises culturing a microorganism having an ability to produce the polypeptide in a medium,

so as to produce and accumulate the polypeptide in a culture, and recovering the polypeptide from the culture.

11. (currently amended): The process according to claim 10, wherein the microorganism is ~~the transformant according to claim 9~~ a transformant comprising a recombinant DNA comprising a nucleotide sequence encoding a polypeptide selected from the group consisting of the following (a) to (c):

(a) a polypeptide comprising an amino acid sequence shown in SEQ ID NO: 2,

(b) a polypeptide comprising an amino acid sequence substantially identical to the amino acid sequence shown in SEQ ID NO: 2, and having a pyroglutamyl peptidase activity, and

(c) a polypeptide comprising an amino acid sequence wherein one or more amino acid residues are deleted, substituted or added in the amino acid sequence shown in SEQ ID NO: 2, and having a pyroglutamyl peptidase activity.

12. (original): The process according to claim 10, wherein the microorganism is filamentous fungus.

13. (original): The process according to claim 12, wherein the filamentous fungus belongs to one genus selected from a group consisting of *Aspergillus*, *Penicillium*, *Humicola*, *Trichoderma*, *Mucor*, and *Fusarium*.

14. (original): The process according to claim 13, wherein the filamentous fungus belonging to *Aspergillus* belongs to one species selected from a group consisting of *Aspergillus oryzae*, *Aspergillus sojae*, *Aspergillus niger*, *Aspergillus awamori*, *Aspergillus kawachii*, *Aspergillus parasiticus*, *Aspergillus flavus*, *Aspergillus nomius*, *Aspergillus fumigatus*, and *Aspergillus nidulans*.

15. (original): A process for producing a protein hydrolysate, which comprises adding the polypeptide according to claim 1 and a protein hydrolase to a raw material containing a protein, and degrading the protein.

16. (original): A process for producing a protein hydrolysate, which comprises adding a culture containing the polypeptide according to claim 1 which is obtained by culturing a microorganism having an ability to produce the polypeptide according to claim 1 in a medium, or a treated product thereof, and a protein hydrolase, to a raw material containing a protein, and degrading the protein.

17. (currently amended): The process according to claim 16, wherein the microorganism is ~~the transformant according to claim 9~~, a transformant comprising a recombinant DNA comprising DNA comprising a nucleotide sequence encoding a polypeptide selected from the group consisting of the following (a) to (c):

(a) a polypeptide comprising an amino acid sequence shown in SEQ ID NO: 2,

(b) a polypeptide comprising an amino acid sequence substantially identical to the amino acid sequence shown in SEQ ID NO: 2, and having a pyroglutamyl peptidase activity, and

(c) a polypeptide comprising an amino acid sequence wherein one or more amino acid residues are deleted, substituted or added in the amino acid sequence shown in SEQ ID NO: 2, and having a pyroglutamyl peptidase activity.

18. (original): The process according to claim 16, wherein the microorganism is filamentous fungus.

19.(original): The process according to claim 18, wherein the filamentous fungus belongs to one genus selected from a group consisting of *Aspergillus*, *Penicillium*, *Humicola*, *Trichoderma*, *Mucor*, and *Fusarium*.

20. (original): The process according to claim 19, wherein the filamentous fungus belonging to *Aspergillus* belongs to one species selected from a group consisting of *Aspergillus oryzae*, *Aspergillus sojae*, *Aspergillus niger*, *Aspergillus awamori*, *Aspergillus kawachii*, *Aspergillus parasiticus*, *Aspergillus flavus*, *Aspergillus nomius*, *Aspergillus fumigatus*, and *Aspergillus nidulans*.

21. (original): A protein hydrolysate which is produced by the process according to any one of claims 15 to 20.

22. (original): An antibody which specifically binds to the polypeptide according to claim 1.

23. (original): A method of detecting or quantifying the polypeptide according to claim 1 which comprises using the antibody according to claim 22.

24. (new): An oligonucleotide comprising a nucleotide sequence consisting of 15 or more contiguous nucleotides of the nucleotide sequence of the DNA according to claim 6 or a nucleotide sequence complementary thereto.

25. (new): The process according to claim 10, wherein the microorganism is a transformant comprising a recombinant DNA comprising DNA selected from the group consisting of the following (a) to (c):

(a) DNA comprising a nucleotide sequence shown in SEQ ID NO: 1,

(b) DNA comprising a nucleotide sequence shown in SEQ ID NO: 5, and

(c) DNA which hybridizes with DNA comprising a nucleotide sequence complementary to the nucleotide sequence shown in SEQ ID NO: 1 or 5 under stringent conditions, and comprises a nucleotide sequence encoding a polypeptide having a pyroglutamyl peptidase activity.

26. (new): The process according to claim 16, wherein the microorganism is a transformant comprising a recombinant DNA comprising DNA selected from the group consisting of the following (a) to (c):

(a) DNA comprising a nucleotide sequence shown in SEQ ID NO: 1,

(b) DNA comprising a nucleotide sequence shown in SEQ ID NO: 5, and

(c) DNA which hybridizes with DNA comprising a nucleotide sequence complementary to the nucleotide sequence shown in SEQ ID NO: 1 or 5 under stringent conditions, and comprises a nucleotide sequence encoding a polypeptide having a pyroglutamyl peptidase activity.

27. (new): A protein hydrolysate which is produced by the process of claim 26.